

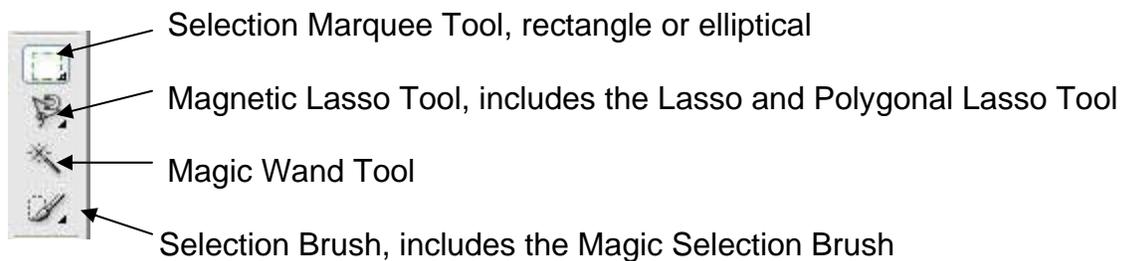
# SELECTION AND MASKING TOOLS TUTORIAL

One of the most useful tools in Elements is the ability to make selections within images. Selecting areas or objects within a picture enables you to:

- Extract a portion of the image
- Move the selection within the image as a copy in another layer
- Copy the selection into another picture
- Apply adjustments to the selection without affecting the rest of the image
- Compose and assemble images from many sources

In this tutorial I will be describing the tools in Elements 4. These are nearly identical with Elements 3 but 4 has expanded the tools available to include two extra items, the **magic selection brush** and the **magic extractor tool**. These are very nice additions but anything they achieve can be done within Elements 3.

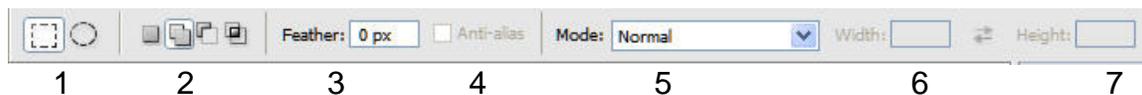
The selection tool box is located on the left hand side of the screen by default and contains these tools and options:



Looking at the tool bar you will notice a small black triangle in the lower right corner indicating that more options are available for this tool. The tool shown is normally the last one used in the selection.

## SELECTION MARQUEE TOOL

When this tool is selected the following appears in the options tool bar across the top of the work area:



From left to right the options are:

1. Rectangular or elliptical selection
2. The four little hieroglyphics are:

- a. New selection
- b. Add to selection
- c. Subtract from selection
- d. Intersect with selection

3. Feather amount on the edges

4. Anti- alias (only applies to the elliptical tool)

5. Option to control by hand (Normal) fixed aspect ratio or fixed size from the drop down menu.

6 and 7. Settings for the fixed aspect (1:1 or 2:1 etc) or fixed size (150 pixels by 200 pixels for example).

When using either the rectangular or elliptical tool you simply make your selection with the mouse and cover the area required.

This tool is useful for simple duplication such as shown below:



A rectangle was drawn around the animal on the left, the selection was copied and pasted back into the picture and moved to the side. A little use of the eraser on the pasted layer and the two sheep (I think) look like bosom buddies!

When selecting to obtain a perfect square or circle when using either the elliptical or rectangular tool press the “shift” key when selecting.

### **LASSO, MAGNETIC LASSO AND POLYGONAL LASSO TOOLS**

These three tools all work in a similar fashion, allowing you to draw or trace around an object to select it.

The options bar looks like this:



1. Reset option. Resets the active tool or all tools(selectable) to the default settings
2. Lasso tool
3. Magnetic lasso tool (shown selected)
4. Polygonal lasso tool
5. The four little hieroglyphics are:
  - a. New selection
  - b. Add to selection
  - c. Subtract from selection
  - d. Intersect with selection
6. Feather tolerance at edges
7. Anti-alias, when checked, smooth's out jagged edges
8. Distance from edge of object to selection created
9. Edge contrast for color recognition (magnetic tool only)
10. Frequency (in pixels) of tool creating an anchor point
11. Select for using stylus pen pressure to change pen width

**Note:** Items 6 through 10 are not available for the simple lasso tool.

If you are selecting a relatively simple shape or where selection edges are not critical the simple lasso tool will do the job. Just click at the start point, follow around shape with the cursor returning to the beginning. The selected area will show by a line of pulsing black and white around area selected.

For more complex shapes or shapes with defined colors the magnetic lasso tool is ideal. After setting the edge contrast (or tolerance of the selected color) and the frequency of putting down an “anchor” point (in the figure above every 57 pixels) the selection is trace with the cursor. The line will hug the object, selecting by its color so it is only necessary to left click the mouse when the color changes.



In this example the magnetic lasso tool was used to trace the outline of the gumball machine and the selection was then copied and pasted onto a new white canvas background.

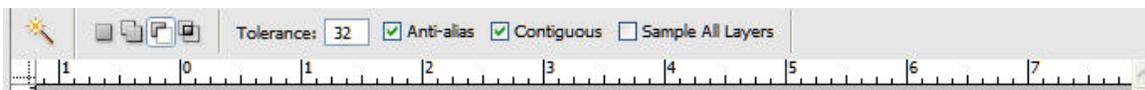
The polygonal (or straight line) selection tool selects a straight line between points where clicked. This is useful for selecting objects which are angular.



In this example a stone obelisk\* was selected and copied from its setting in a garden.

By clicking along the edge of the shape at each change of direction of the straight line I was able to copy very accurately the shape.

## MAGIC WAND



This tool is similar to the magnetic lasso tools in that it selects image areas of similar color. With the wand you just click over an area to be selected. It has settings for:

- Tolerance: How close similar colors have to be to be selected
- Contiguous: Selects only similar colored pixels that touch one another
- Non-Contiguous: Selects every instance in the picture the color is featured

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\* Obelisk, A tall, four-sided shaft of stone, usually tapered and monolithic, that rises to a pointed pyramidal top

One of the benefits (and sometimes a drawback) is that the wand does not care much about hues but brightness wherever you first click. This means that you can select image areas whose colors are different and you can quickly click over several areas to select most of a multi colored background.

In this example I have a picture taken in a non- descript setting.



As it was a bright and sunny day I decided the ladies would look better in a tropical setting.

First I opened the picture in Elements and selected the magic wand tool.

As you can see from the screen shot I have another pallet open, the information pallet. This useful pallet is accessed by clicking F8. I will explain all the ins and outs of this pallet some other time but for this picture I am interested in the shades around the subjects. I go to the eye dropper in the upper right of the pallet, right click and select grayscale. This then shows the letter K (which means black plate in printer terms). I then hover the cursor over the lighter area of the background and see a number of 32% then over the darker area and see a number 74% so I set my tolerance at 107. Now you



are saying where on earth did 107 come from? If you remember tolerance ranges from 0 -256, in this example the difference between 32 and 74 is 42% so multiply 42 by 2.56 (256/100) and you get 107. This is a bit of a guesstimate but it gives you a starting point for the tolerance.

After clicking the magic wand on the background and using the selection brush to clean up the selection the end result is a shown here:



I have cut the background to illustrate the image that is left of the ladies. I know some people are going to look closely at the image and notice that the original background is still showing on the left hand side between the ladies body and arm but that will be corrected

when we transpose the picture into the new background. In this case I selected one of my stock pictures and did a copy from the first and pasted into the second picture. The size was adjusted and then the area between body and arm was cleaned up along with some of the edges with the eraser tool on the new layer.

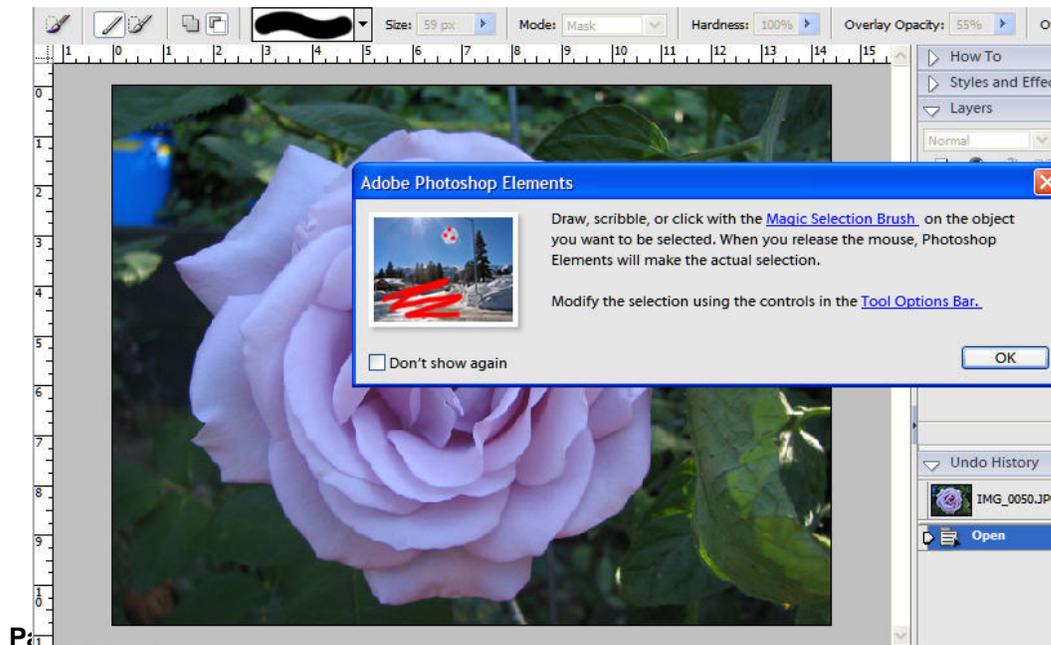


**HINT:** When selecting from a picture like this crop the image down to just the subject or objects you are selecting, it saves a lot of time and effort cleaning up the selection.

## SELECTION BRUSH

The selection brush has its greatest use in cleaning up small areas after the majority of the selection has been done by one of the other tools. By selecting the appropriate brush size you can go around the edges and clean up the fringes, remembering to select either add or subtract from the selection in the options bar or easier still press the alt key when subtracting from the selection.

As mentioned in the introduction in Elements 4 the selection brush now has an additional feature the **MAGIC SELECTION BRUSH**. This works somewhat like the magic wand. When you choose the magic selection brush on the options bar the screen looks like this:



Elements pops up a window telling you to draw, scribble or click with the magic selection brush and the program will do the rest. This window can be disabled by clicking on the “don’t show again” box.

When this tool is used the options bar looks like this:



As you can see the magic brush is selected and the brush size is 42 pixels and the color is red. As shown on the previous picture you are advised to scribble on the area you wish to select (in this case a 42 pixel diameter brush painting red) and when you stop the program takes over and a progress bar goes across the screen as it processes the information. In this case the picture was a pretty definitive one and selecting the rose was easy. The end result looked like this:

As mentioned this was a pretty simple picture to separate, there was a definitive difference between the flower and the background but not all pictures will be this easy.



Note this tool is new to Elements 4 and is not available in Elements 3.

Before we go onto further adventures with selections and masking let’s take a look at another new tool Elements 4:

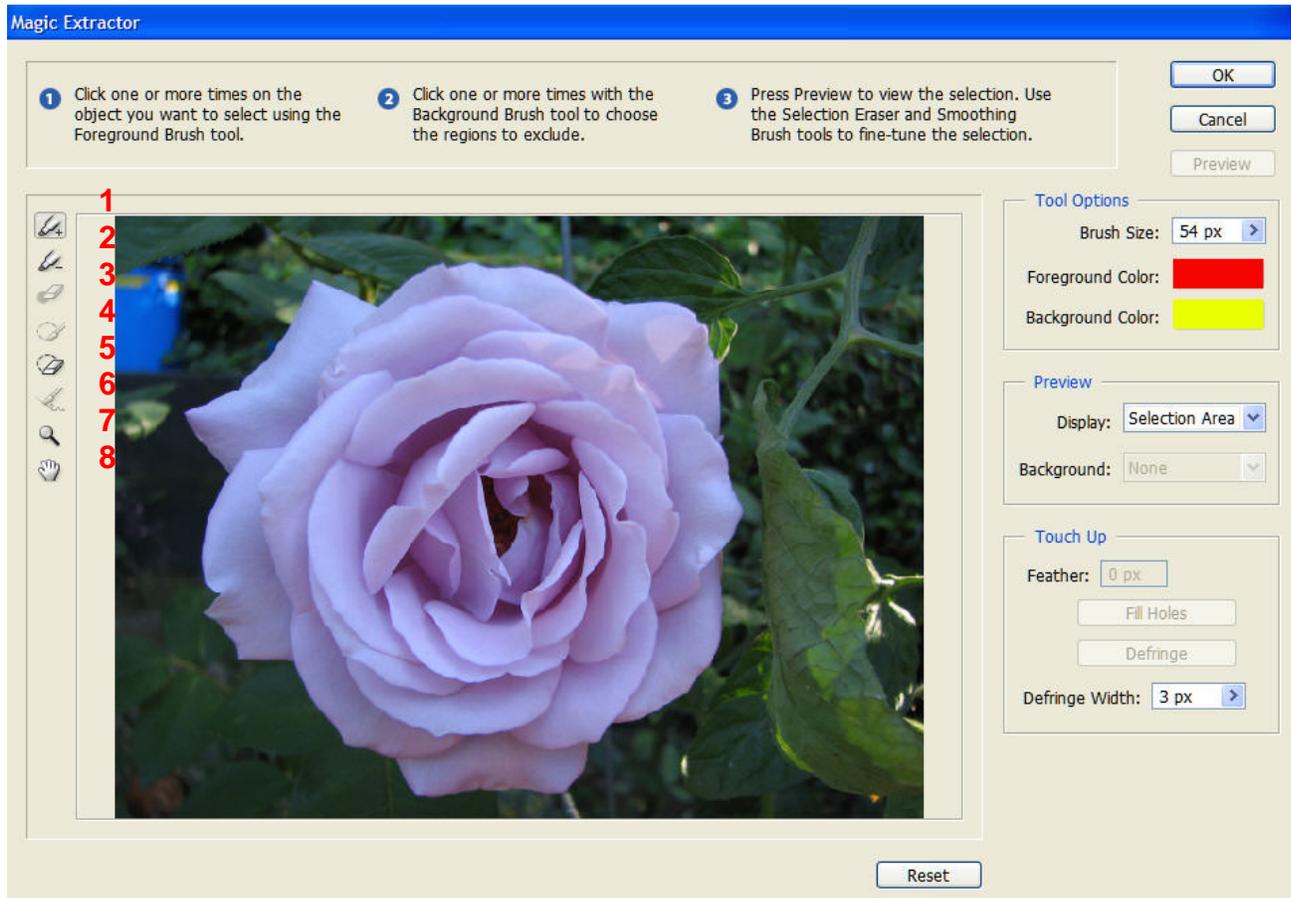
## THE MAGIC EXTRACTOR

I am not sure why Adobe likes to describe tools as magic (maybe somebody called Merlin works there) but this new tool enables you to make selections based on your identifying the foreground and background of your image. It is similar to the magic selection brush but with one big difference, you get time to look at what you have selected both in the foreground and background before the program does the extracting.

As mentioned previously, depending on what your extraction object is, do take some time to crop out all unnecessary areas from the image, your result could be much more accurate.

To select this option choose IMAGE>MAGIC EXTRACTOR from the menu bar and the rather large dialog box appears with the working image ( see below):

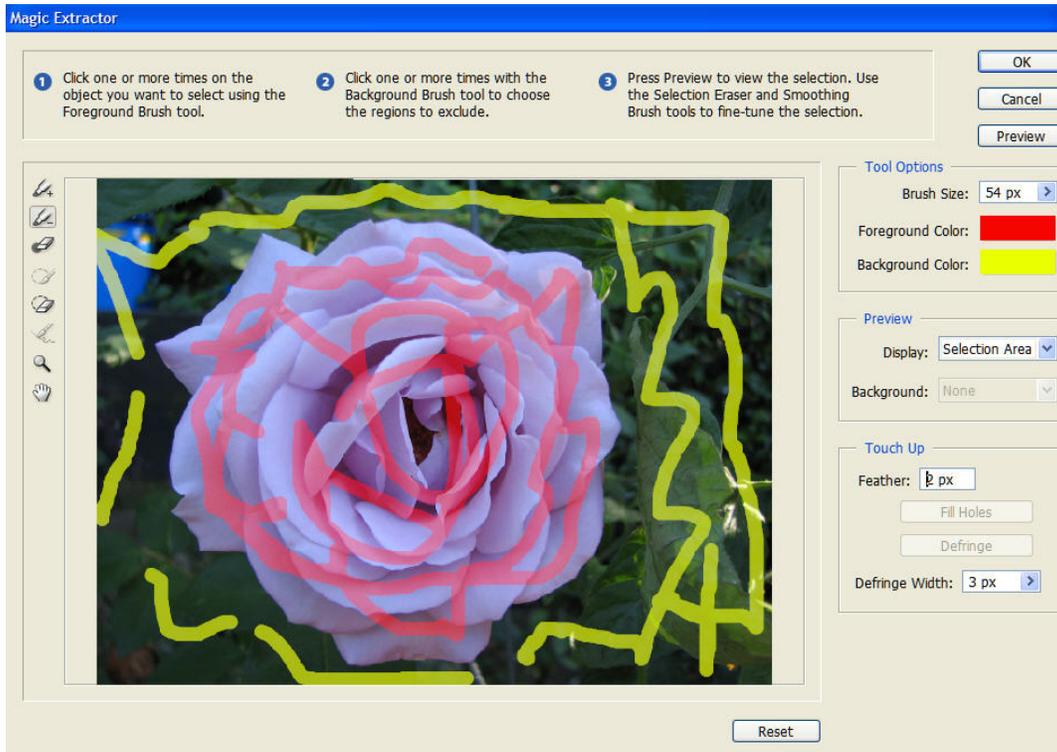
Down the left hand side are the available tools, on the right hand side are your options for brush size and colors for foreground and background.



The tools are as numbered:

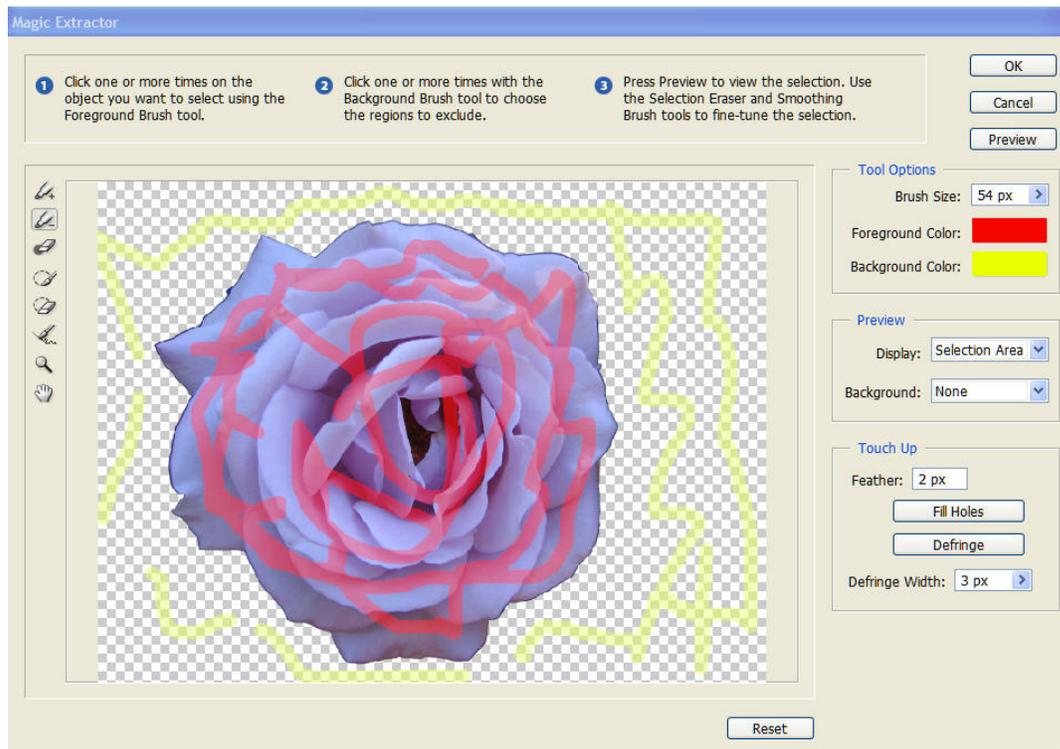
1. Foreground brush tool, click to select
2. Background selection brush, click to select
3. Point eraser to remove selection indicator points
4. Add to either foreground or background
5. Erase from either foreground or background
6. Smoothing brush for edges
7. Magnifying tool
8. Move tool

When starting a selection choose the background and foreground colors to contrast with your image and then select each in turn. The instructions along the top of the tells you to just click on the area (leaving colored dots) but it is better to scribble around the area (think of it as your first coloring book, keep within the lines!). Do this for both the foreground and background so that your iamge looks something like the one shown below:

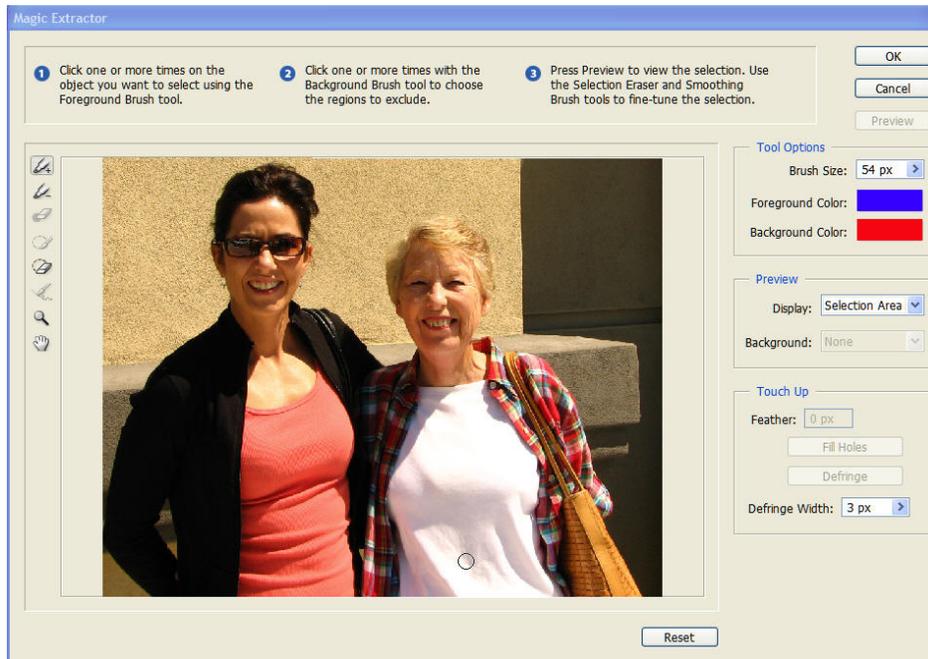


Note the touch up is set for a feathering value (for initial softening of the edges) and a defringe value (default = 3) which will help eliminate the halo of pixels between the foreground and background.

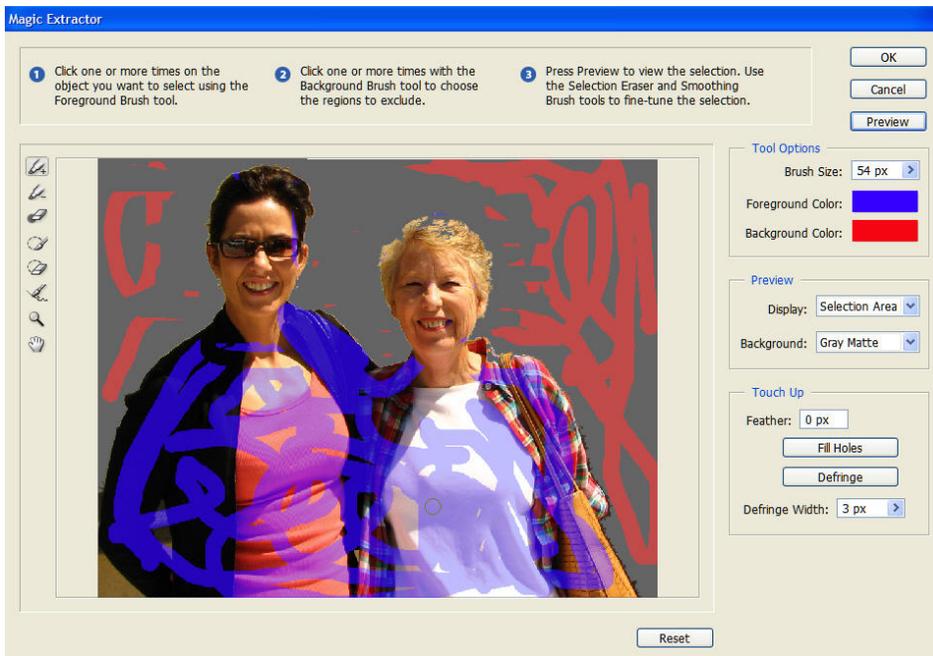
Clicking on preview gives you this:



Again the tool did a very credible job but this is a pretty simple extraction. Let's try the picture we used before:

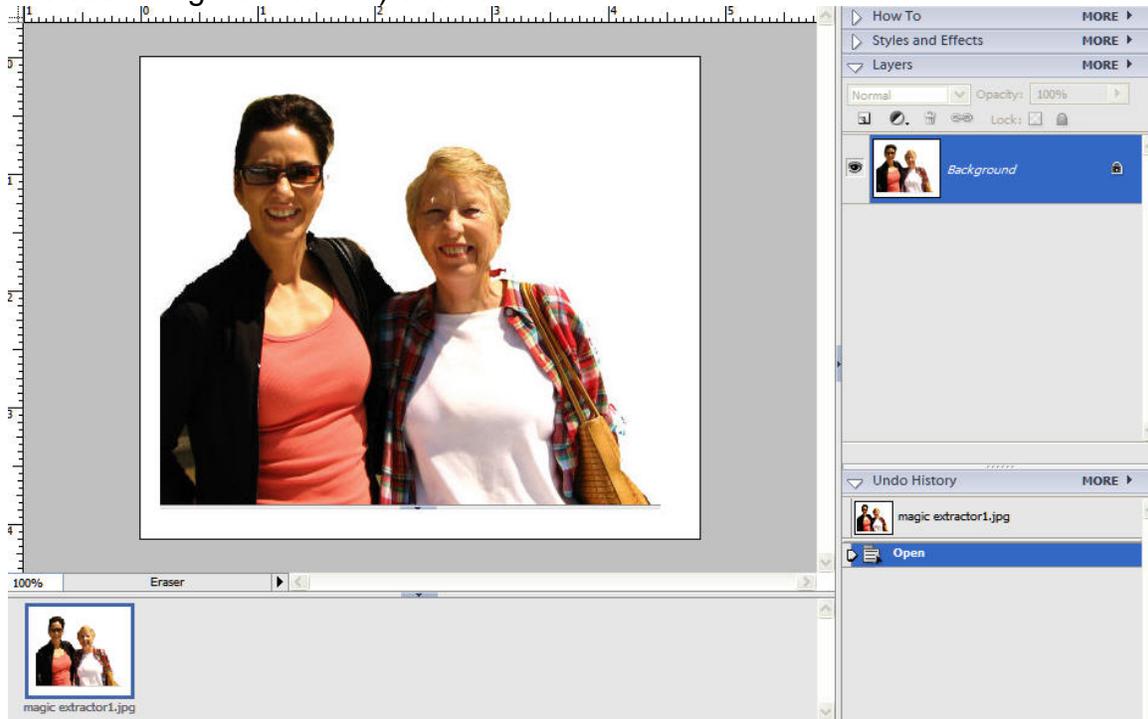


Prior to extracting, Foreground = Blue Background = Red



After extraction, note settings Background, gray matte Feather 0 Defringe 3

The picture required a little cleaning up but the end result was quite acceptable. When you have finished and click OK Elements saves the image as a new file (in this case Magic extractor1) see below:



Finally, whilst we are on the subject of magic let's check out the magic eraser. This tool can be used in a very similar fashion to the magic wand it selects based on the similarity to the first color or brightness selected and erases all pixels that are similar within the tolerance set by the user.

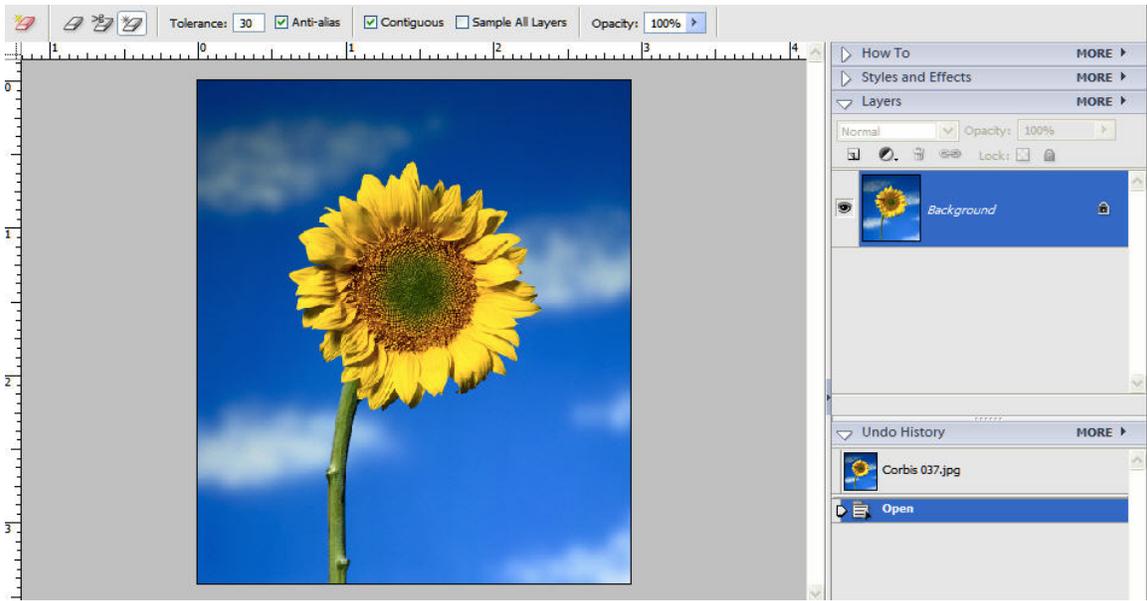
First open the picture and select the eraser tool you will note there are three choices:

1. Eraser
2. Background Eraser
3. Magic Eraser

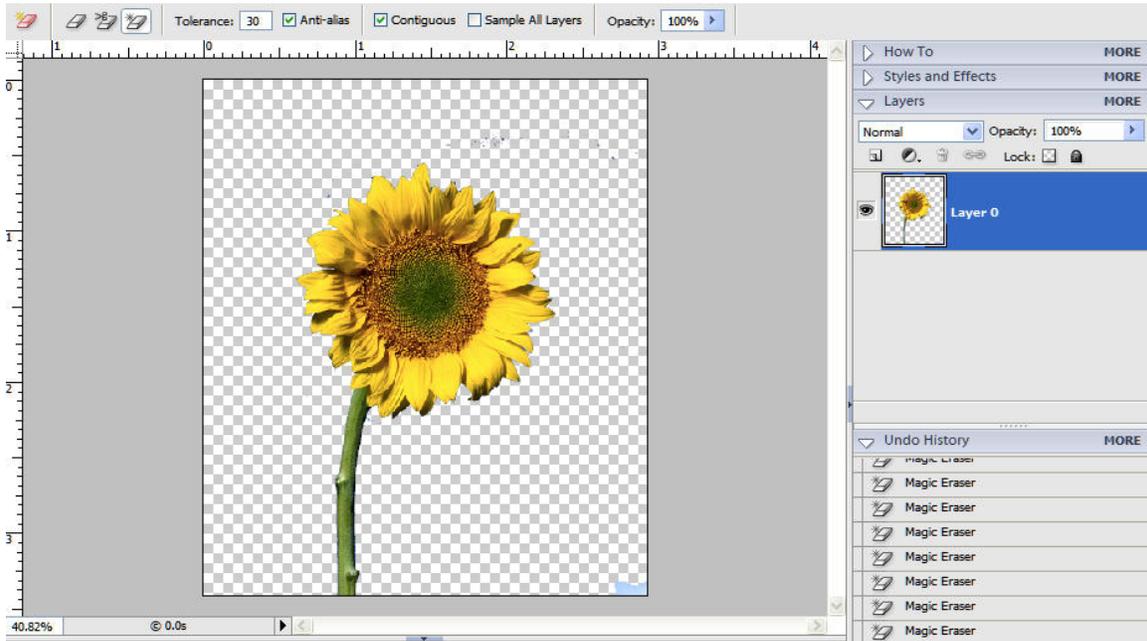
The eraser tool is not the most accurate tool; it erases portions of the image to the color of the background depending on the opacity setting.

The background eraser is a little smarter it erases the background from the image but, hopefully leaving the foreground intact.

The magic eraser is a combination of the magic wand and eraser. If you have an image with distinct differences between what you want to keep and what you want to erase.

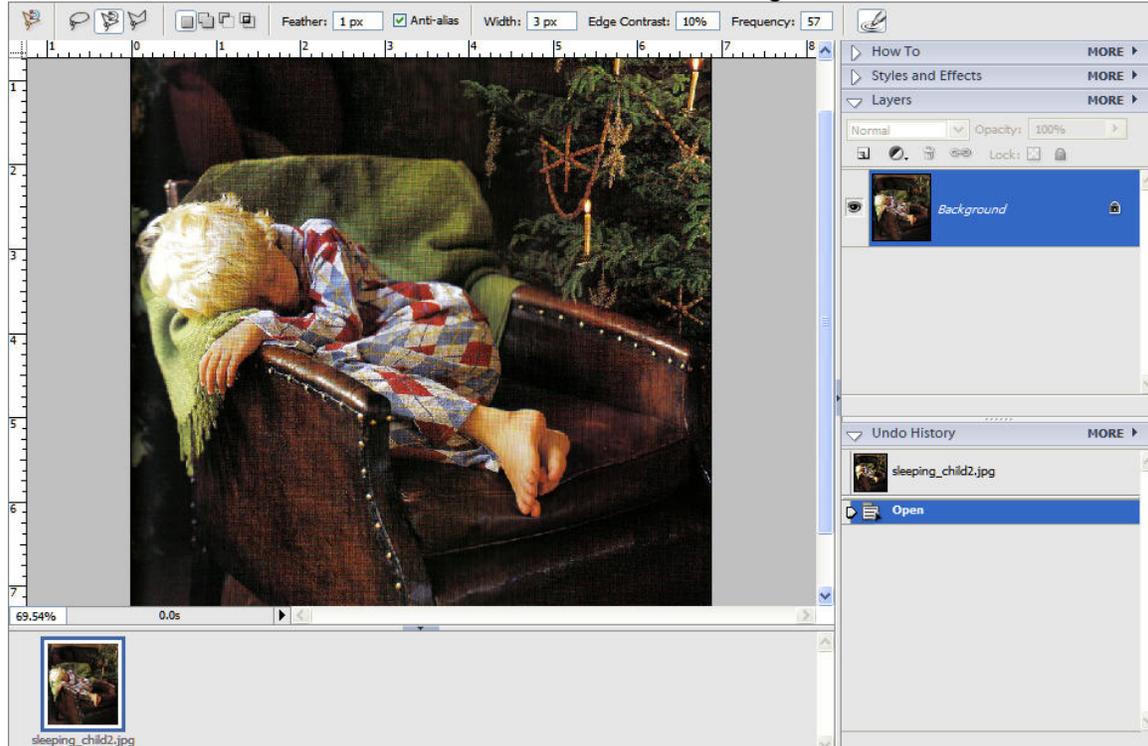


This image lends itself readily to the magic eraser (which has been selected).. Tolerance has been set at 30 and with just a few clicks of the mouse the flower is isolated as shown below.



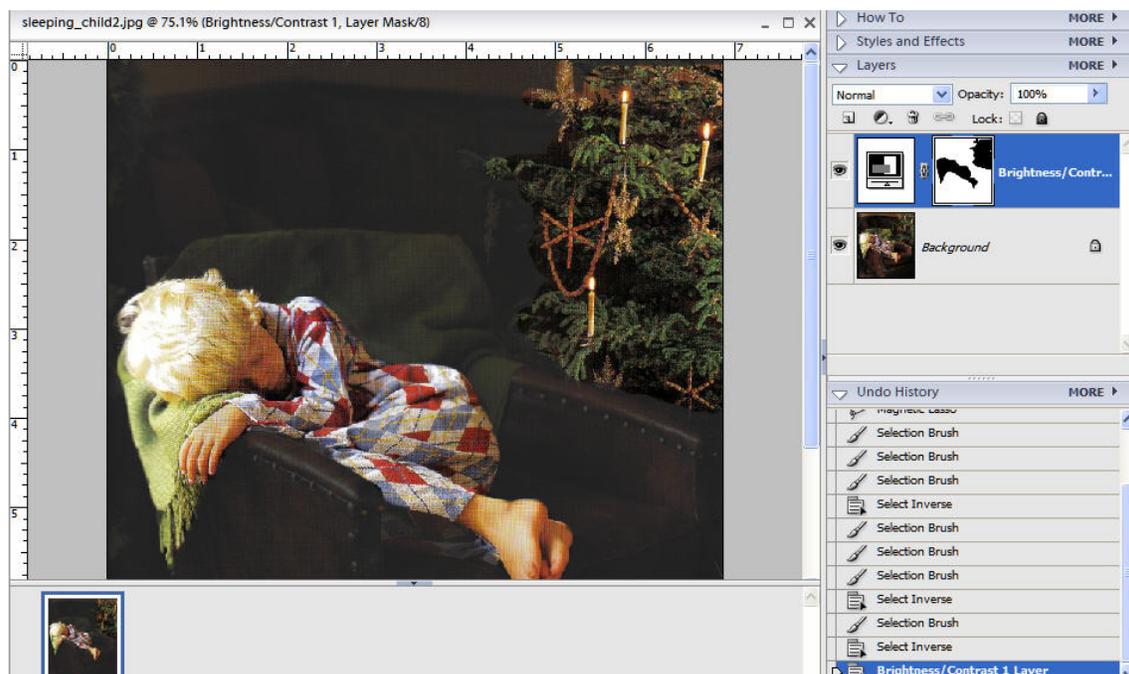
Now that we have covered the selection process for moving selections within images, moving selections into other images let us now consider selecting portions of an image to be corrected whilst leaving the rest of the image untouched.

In this image (obtained from Google Images) I decided to make the sleeping child and the tree the center of attention and mute the background.



After opening the image in Elements I chose the magnetic lasso tool to trace the outline of the child and the Christmas tree.

. Magnifying the result I cleaned up the edges with the selection brush. I then inverted the selection to select everything except the child and tree and applied a brightness and adjustment layer.



My idea was that the focal point of the picture was the child falling asleep in front of the Christmas tree and the rest of the image was superficial. Of course these are my ideas and you should look at some of your images and decide if they could benefit from some creative alterations.

Finally we have masking. Masking is a selection, only instead of putting a selection mark around a subject you paint over it with the selection brush. It is similar to taping over something at home prior to painting to avoid slopping paint onto it.

The mask is available only with the selection brush and is selected from the drop down mode menu.

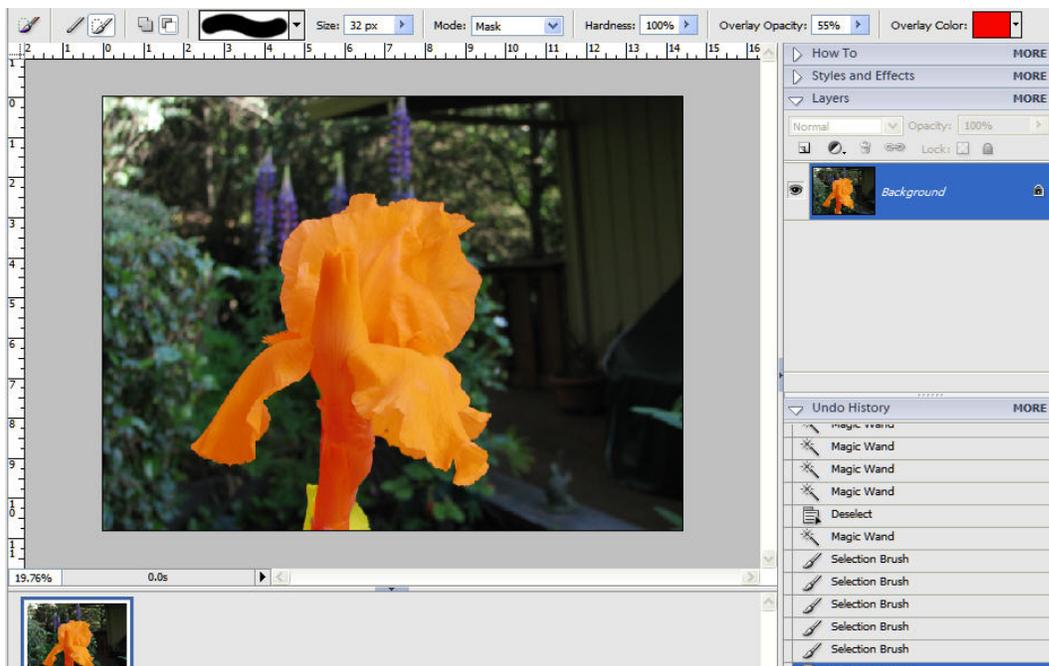


I took this picture of an Iris in my garden and decided it was good enough to frame with a little help.

There is too much background which takes away from the focal point the bright yellow flower.

I opened the picture in Elements and set the tolerance using the formula previously discussed. This took care of

most of the flower and then I changed to the selection brush in mask mode and completed the selection (see picture below).



The mask color is red as you can see from the overlay color on the options bar but I set the opacity to 55% to allow me to see any areas that were not selected. The area at the bottom center is part of another bloom and not needed in this picture. When you zoom in on this image you can see any small areas that may not be included and using the selection brush (with a hardness of 100% for a clean line) they can be added.

Then adding an adjustment layer and turning the brightness and contrast down to zero I had an image against a black background. I then cropped it to 8x10 and the result was worth framing. (I think, see below).



Again this is my idea and maybe not to everyone's taste. This is where your imagination comes into play, look through your pictures and see which may be suitable for framing!

Well that is all for this tutorial, as always remember practice makes perfect or at the very least makes you slightly crazy. As always any comments, questions or ideas for other tutorials are always welcome just e-mail me at the address on the SIG page.